



October 26, 2017

California Air Resources Board  
1001 I Street  
PO Box 2815  
Sacramento, CA 95812

**Re: Comments to Assist in Developing Guiding Principles for Drafting California's Volkswagen Beneficiary Mitigation Plan**

Greenlots appreciates the opportunity to comment on the Board's process in developing California's Beneficiary Mitigation Plan, and suggest guiding principles in support of allocation of funds to accelerate transportation electrification.

When Governor Brown signed Executive Order B-16-2012, he ordered that by 2020 California have zero-emission vehicle *infrastructure* able to support up to one million vehicles. We are roughly two years away from this target year, and have inadequate infrastructure to support the roughly 300,000 zero-emission and plug-in hybrid electric vehicles in California today. Greenlots recommends that the California Air Resources Board (CARB) allocate the maximum 15% of mitigation trust dollars toward light duty electric vehicle charging infrastructure. We recommend that this infrastructure should be in locations that are publicly available, at multi-unit dwellings (MUD), and at workplace/fleet facilities. This recommendation does not discount the infrastructure investments being made by Electrify America and likely to be made by utilities and the private market, but recognizes that those investments are inadequate to reach the 2020 target of Governor Brown's Order.

When structuring the allocation of these funds, Greenlots recommends the following approaches be considered.

- Require charging station hardware to include Open Charge Point Protocol (OCPP) support;
- Working with the agencies, Electrify America, and other industry stakeholders, adopt a driver roaming communication protocol that is supported by any network or charging station infrastructure funded by the California trust dollars;
- Emphasize high power DCFC stations, which will prove to be more impactful as the EV market grows and batteries become larger and may also support heavy-duty applications; and

Greenlots advocates for CARB to direct the remaining 85% of funds to heavy-duty transportation electrification, over legacy fuel sources such as natural gas. Greenlots recommends these funds be directed more heavily towards the electrification of transit, shuttle, and school buses.

By directing 85% of funds towards the electrification of transit, shuttle, and school buses, CARB accomplishes three broad goals:

- Advances California in being less reliant on and invested in fossil fuel infrastructure;

October 26, 2017

Re: Guiding principles for drafting California's Beneficiary Mitigation Plan

Page 2

- Ensures the funds Impact large populations that utilize public transit, and children who ride in school buses – as well as the populations living in the geographies these vehicles drive through; and
- Ensures a long-time horizon of impact due to the life cycle of such vehicles, while reducing future life-cycle costs in current fleets from savings in fuel and maintenance

Although we advocate for the trust to be allocated entirely towards transportation electrification in the categories previously mentioned, we would like to offer the following recommendations as guiding principles if CARB elects to allocate funds towards other eligible mitigation action categories.

In choosing other eligible mitigation action categories, please take into consideration ancillary benefits that will occur following the initial allocation. Funds allocated towards categories other than transportation electrification should be able to:

- Offer grid resiliency;
- Increase the ability to integrate renewable energy generation on the grid; and
- Offer redundancy and resiliency, including backup power

As an example, one category we identify that would accomplish such benefits is allocating funds towards electrified 'Ocean-Going Vessel Shorepower'. This category requires "systems that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth", and "should be supplied with power sourced from the local utility grid".

Such a system could be a large-scale battery electric storage system connected to the grid that serves as the Ocean-Going Vessel Shorepower. This system is connected and sourced from the local utility grid, while offering a solution to California that includes the above mentioned ancillary benefits.

Thank you for your consideration. Greenlots is available as a resource to CARB through the drafting and implementation of the Beneficiary Mitigation Plan. Please do not hesitate to contact me should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas Ashley', with a stylized, flowing script.

Thomas Ashley  
VP, Policy  
Greenlots